

Before the
DEPARTMENT OF COMMERCE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
and the
DEPARTMENT OF AGRICULTURE
RURAL UTILITY SERVICE
Washington, D.C. 20230

In the Matter of)	
)	
Implementation of Section 6001 of the American)	
Recovery and Reinvestment Act of 2009)	
)	
Implementation of Title I of the American)	Docket No. 0907141137-91375-05
Recovery and Reinvestment Act of 2009)	

COMMENTS OF THE CITY AND COUNTY OF SAN FRANCISCO

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I. EXECUTIVE SUMMARY

The City and County of San Francisco (“San Francisco”) respectfully submits the following comments in response to the National Telecommunications and Information Administration (“NTIA”) Request for Information (“RFI”) for implementation of Title I and Section 6001 of the American Recovery and Reinvestment Act of 2009 (“ARRA”). San Francisco welcomes the opportunity to submit comments to help guide the NTIA in crafting the rules and procedures for the second round of grants under the Broadband Technology Opportunities Program (“BTOP”). In these comments, San Francisco responds to certain of the questions posed in the RFI, in order of their appearance in the RFI.

To summarize its key points, San Francisco believes that the NTIA should consider the following factors as it develops its Notice of Funds Availability (“NOFA”) for the second round of BTOP grants:

- The NTIA should rely on innovative last mile pilot projects as a way to multiply its investment in infrastructure projects and not focus the BTOP grants solely on middle mile projects
- If the NTIA decides to limit funding to middle mile “Comprehensive Community” projects, it should:
 - Clearly state this intention in the Round Two NOFA to discourage wasteful effort by potential applicants and the NTIA;
 - Evaluate Comprehensive Community networks based on the number of participating community anchor institutions;
 - Encourage participation by community anchors that expand the use of broadband among vulnerable institutions, such as libraries, public housing, senior centers, after school programs, and employment centers.
- The NTIA should add a new criteria for establishing whether an area is underserved: poverty rate greater than 20%, so that applicants may demonstrate that an area is underserved if it meets this new criteria or any one of the NTIA’s three criteria from the original NOFA.

II. ANSWER TO QUESTION I.A.3: CENSUS BLOCK GROUPS ARE A GOOD ALTERNATIVE FOR ESTABLISHING SERVICE AREA BOUNDARIES

San Francisco believes that census blocks are a good alternative for establishing boundaries of service areas in many cases; however, they are a poor basis for collecting subscribership or other demographic data necessary to establish that an area is underserved. Demographic data is not routinely collected at such a granular level, so data should be allowed, but not required at this level of granularity.

III. ANSWER TO QUESTION I.B: THE NTIA SHOULD ONLY WITHOLD DATA TO PRESERVE THE COMPETITIVE PROCESS DURING THE REVIEW PERIOD AND FOR OTHER LIMITED PURPOSES

San Francisco believes that greater access to applicant data should be allowed. Applicant data should only be kept confidential: to maintain a competitive process during the review period and for other limited purposes, such as to preserve trade secrets or network security. The NTIA may need to keep some information confidential during the course of review, in order to safeguard the competitive process, but, at the conclusion of the review, this data should be released. In the long run, data collected through the BTOP program could be invaluable in assisting communities in network design, business planning and application development. By collecting and disseminating data from the application stage onward, the NTIA can spread the benefits of the program beyond funded projects.

IV. ANSWER TO QUESTION I. C: THE FIRST ROUND OUTREACH PROCESS COULD BE IMPROVED BY ALLOWING REMOTE PARTICIPATION IN PUBLIC MEETINGS AND ENSURING CONSISTENT WRITTEN GUIDANCE

San Francisco believes that the Round 1 workshops were valuable. San Francisco staff attended the workshop held in Los Angeles in person. The direct communication between NTIA and potential applicants gave a good sense of which application guidelines and requirements were clear and which needed further clarification in subsequent written guidance. If the NTIA decides to reduce the number of workshops, we would recommend that the NTIA facilitate remote participation by video and teleconference with an opportunity for remote participants to pose questions.

San Francisco urges the NTIA to make written materials—the NOFA, the Guidance Manual, application forms and FAQ-- as consistent as possible. In the first round, confusion surrounding discrepancies between the various documents may have discouraged applications or caused the quality

of applications to suffer. We understand the need to respond to inquiries as they arise, so we recommend a cut-off date for substantive inquiries and subsequent addendum to the NOFA. The NTIA could achieve this, for example, by cutting off substantive inquiries 10 business days prior to the submission date and compiling an addendum to the Guidance Manual published five business days prior to the submission date.

V. ANSWER TO QUESTION I.D: THE NTIA COULD IMPROVE THE INDEPENDENT REVIEW PROCESS BY CONVENING THEM IN PANELS WITH NTIA STAFF

NTIA should continue to use three independent reviewers, but should convene them in panels with staff to report their evaluations in order to interact and share comments for the best possible analysis. This process has been used by the National Science Foundation with good results. Independent reviewers very often have narrow focus or knowledge within their own area of expertise. The current process does not provide for consensus formation.

VI. ANSWER TO QUESTION II.A.1: LIMITING ROUND TWO INFRASTRUCTURE PROJECTS TO MIDDLE MILE NETWORKS OR COMMUNITY ANCHOR NETWORK WOULD DEMINISH THE NTIA'S ABILITY TO ACHIEVE THE PURPOSES OF THE ARRA

San Francisco agrees with the NTIA that connecting community anchor institutions is a critical component of the BTOP program. Providing broadband to libraries, schools, health care clinics, digital inclusion service providers and other community anchors is a vital first step in bringing the benefits of broadband deeper into our communities. However, focusing solely on middle mile “Comprehensive Community” projects would fall short of achieving the expressed purpose of the ARRA. (By Comprehensive Community projects, we understand the NTIA to mean networks that would serve community anchor institutions and offer non-discriminatory access to last mile network providers that might serve the public directly.) San Francisco appreciates the rationale behind the effort—to multiply the benefits of broadband investment beyond the direct beneficiaries. However, San Francisco believes that there is an alternative approach that better matches the expressed goals of the ARRA: investing in select, innovative last mile pilots and requiring that these last mile pilot projects contribute to a toolkit for replication in other communities. If the NTIA does determine to

limit funding to Comprehensive Community projects rather than consumer oriented projects, it should (1) clearly state its intent prior to receiving round two applications,(2) ensure that the Comprehensive Community projects will serve as many community anchor institutions as possible and (3) clearly include in the definition of anchor institutions critical facilities serving the basic needs of large numbers of the target population who will not have broadband access at home, such as senior centers, adult day health care, community/tribal centers that are congregate meal sites, etc. These institutions are the lifeblood of the aging and disability communities, the fastest growing population in California and most other States.

A. Middle Mile Networks Will Not Achieve the ARRA's Expressed Purposes of Serving Unserved Communities and Improving Service in Underserved Areas

Focusing on or limiting round two infrastructure projects to “middle mile” networks would shortchange two important purposes of the ARRA: (1) providing access to broadband service to consumers residing in unserved areas of the United States; and (2) providing improved access to broadband service to consumers residing in underserved areas of the United States. [§6001(b)] Middle mile networks do not provide direct or improved access to consumers in their homes; only last mile networks achieve this goal. The BTOP program could not lay claim to a single additional home passed if it were limited to middle mile networks. A middle mile network can facilitate the construction of last mile networks by reducing the cost of construction; however, this benefit is finite and leaves the heavy lifting to unfunded last mile projects. Furthermore, it is unclear how a middle mile network would increase broadband adoption rates in a significant way even in targeted communities if end user access is not part of the program.

San Francisco estimates that building a fiber network offering one gigabit Ethernet service to 300 new community anchor sites would cost approximately \$18 to \$20 million, while a one gigabit passive optical fiber optic network passing all homes and serving 55% of those homes would cost approximately \$550 to \$600 million. The middle mile network would represent less than 4% of the investment necessary to reach homes and businesses.

B. Innovative Last Mile Pilot Projects Would Provide the NTIA With a More Effective Way to Multiply BTOP Investments

San Francisco appreciates the motivation behind middle mile networks: to allocate limited resources as widely as possible and hopefully act as a multiplier. Theoretically, there would be a couple of mechanisms under which this would happen: (1) unfunded last mile providers would make use of the middle mile network as an internet backbone, and (2) some anchor institutions on the middle mile would offer public access to broadband or broadband adoption programs. This hypothesis relies on an appealing, but untested theory: that marginal reductions in backbone costs will lead to affordable last mile service. However, the link between the middle mile network and the consumer is too indirect and tenuous to have any confidence that a focus on middle mile infrastructure would result in increased broadband subscribership.

San Francisco believes that there is a better way to multiply investment in broadband infrastructure: invest in select, innovative last mile pilots and require that these last mile pilot projects contribute to a toolkit for replication in other communities. Grant recipients should be required to provide detailed information on network design, construction costs, administrative structure and costs, financial results, associated applications and metrics of success in serving anchor institutions and broadband subscribership. This will help funded pilot projects serve as models for other communities to identify what applications, technical approaches and business models work and what do not. Much of this information might ordinarily be considered proprietary and confidential, but, in order to serve as a model for other communities, could be required to be made public as a condition of a BTOP infrastructure grant.

C. If the NTIA Should Limit Funding to Comprehensive Community Projects, the Agency Should (1) Make this Clear Prior to the Second Funding Round and (2) Favor Applications that Serve a Broad Array of Anchor Institutions

If the NTIA were to limit funding to Comprehensive Community Projects, the agency should (1) make this determination clear prior to the second funding round and (2) ensure that BTOP funds reach a broad and diverse array of anchor institutions. Once the NTIA has determined what types of projects it intends to fund through the second round, it should provide guidance to potential applicants in order to avoid unnecessary effort on the part of applicants and the NTIA. San Francisco urges the

NTIA to apply some BTOP grant funding to applications that propose a pilot last mile networks, but if last mile network proposals will not be considered by the NTIA, it should be explicitly disclosed at the outset. A BTOP infrastructure grant entails a great deal of effort and expense for both the applicant to prepare and for the NTIA to review, so clarifying this issue would be helpful.

The NTIA should also appropriately target anchor institutions and favor applications that serve the greatest and most diverse group of anchor institutions. Community anchor institutions should include both those explicitly named in the ARRA, as well as other types of organizations that are more generally described by the ARRA. The ARRA names a list of community anchor institutions, which include:

- Schools
- Libraries
- Medical and health care institutions
- Community colleges and other institutions of higher education
- Community organizations dedicated to facilitate greater use of broadband by or through other community anchors
- Public safety agencies.

These institutions are not intended to be an exhaustive list of anchor institutions. Congress correctly recognized that other anchor institutions may vary from region to region. Accordingly, the ARRA describes two other types of community anchor institution that are no less important:

- Digital inclusion organizations or in the words of the ARRA, “organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by low-income, unemployed, aged, and otherwise vulnerable populations” and
- Job creating strategic facilities in a variety of economic zones.

There are some important features of these two additional categories. First, these categories show that the ARRA intends, where possible, for infrastructure projects to support digital inclusion job creation efforts, the types of projects that the NTIA has classified as broadband adoption and computer center projects. Second, the ARRA recognizes that digital inclusion and strategic job creating facilities will vary from community to community. Under these categories, a variety of institutions critical to

increasing broadband adoption or job creation should be considered community anchors, including, but not limited to:

- Public housing developments and other low income housing providers with integrated computer centers and training;
- Senior centers that host computer centers and training;
- After school programs that teach computer skills;
- Workforce training programs that teach a variety of computer skills;
- Digital media training centers that provide critical workforce development;
- Digital media centers that bring compelling content, especially content targeted toward vulnerable populations.

Finally, the NTIA should recognize that because middle mile Comprehensive Community networks serve institutions, not consumers, the definitions of unserved and underserved do not really apply. The successful construction of a middle mile network will not necessarily mean that an area that was unserved or underserved becomes “served”. By separately identifying unserved, underserved and vulnerable populations the ARRA recognizes that there may be vulnerable populations that reside in areas that are “served”. San Francisco suggests that the NTIA de-link Comprehensive Community networks and rely on the separate purposes established in the ARRA for reaching community anchor institutions.

VII. ANSWER TO QUESTION IIA.2: THE NTIA SHOULD NOT ALLOCATE PORTIONS OF ITS PROGRAM TO SPECIFIC REGIONAL ECONOMIC DEVELOPMENT PROGRAMS

The NTIA should not allocate a portion of the remaining programs to promote a regional economic development approach to broadband. Such programs should be evaluated on the basis of a set of criteria including, short term and long term job creation benefits. If they are well designed and demonstrate potential benefits, they will score highly according to these criteria and will not need a special set aside. In general, the NTIA should not set aside funding for specific programs, especially for entities or approaches not identified in the ARRA.

VIII. ANSWER TO QUESTION II.A.3: THE NTIA SHOULD STRUCTURE EVALUATION CRITERIA TO RECOGNIZE APPLICATIONS THAT SERVE TARGET POPULATIONS SUCH AS PUBLIC HOUSING AUTHORITIES AND LIBRARIES, RATHER THAN RELY ON SPECIAL ALLOCATIONS.

The NTIA should not allocate portions of funding to targeted populations. Whatever features might make an institution worthy of targeting should be recognized in evaluation criteria. For example, the NTIA asks whether there should be special allocations for public housing and libraries. As described above, both of these should be regarded as community anchor institutions for the purposes of an infrastructure grant as should other critical anchor institutions such as senior centers. In addition, such projects should score well against properly structured evaluation criteria for Computer Center and Broadband Adoption grants.

Public housing serves low income residents, generally among the most underserved groups. The San Francisco Housing Authority has been a central focus of San Francisco's digital inclusion efforts. As part of a Community Network pilot San Francisco currently offers free internet access to over 2500 units on 12 San Francisco Housing Authority developments. This network is served using fiber to the facility and then wireless to the individual unit, or in cases where there is data wiring available, a wired Ethernet connection. Public housing differs by location, but often include community facilities that can be used as computer centers and locations for training.

Senior centers serve the fastest growing population in unique and critical ways, providing such essential services as congregate meals, socialization and access to services for healthy independent living. Seniors are one of the largest groups of non-computer users. Providing the opportunity to access broadband mediated services in the area of health resources, family connection over long distances and cognitive fitness activities, with training and coaching in the venues in which they spend their days will be immensely important for broadband adoption.

Libraries are vital community institutions providing free access to public computers with connection to the internet as well as access to a variety of computer applications, online resources and databases and e-government services. Moreover, libraries provide instruction and training workshops on using computers, navigating online, finding information on the web and using the internet and online resources for essential services, such as preparing job applications and finding jobs, health

information, and neighborhood services. In their role as public computer access centers, libraries serve to stimulate the adoption of broadband service in the community.

For libraries, BTOP and E-rate funding serve different purposes and can be easily reconciled. E-rate funding for the library ensures ongoing support and sustainability for the infrastructure and equipment investment made available by BTOP funds. E-rate funding that supports the Library's monthly recurring charges for the increased broadband capacity made possible by BTOP projects enables the success and long term benefits of those investments.

Targeting funding among populations is a very different issue than targeting funding among BTOP program areas. The infrastructure, computer center and broadband adoption programs are all identified in the ARRA, and the Act itself allocates between the programs by establishing minimum funding levels. If the NTIA opts to focus on or limit second round funding to Comprehensive Community projects, the only direct access by the public (absent any last mile partner) would be through community anchor institutions. In this case, the NTIA should increase funding for Computer Center and Broadband Adoption projects.

IX. ANSWER TO QUESTION II.A.4: IF THE NTIA INCREASES ALLOCATIONS TO COMPUTER CENTERS, IT SHOULD THE NTIA SHOULD PROVIDE ADDITIONAL SUPPORT TO NON-COMMERCIAL PROJECTS WHICH ARE COMBINED WITH BROADBAND ADOPTION PROJECTS

If there is a compelling interest in increasing funding for computer centers, a value added way to accomplish this may be to have a separate category for non-profit or government entities that marries computer centers to broadband adoption, to which an additional allocation from the federal reserve fund could be set aside, rather than borrowing from one of the announced funding allotments. This would also ease the application process by enabling submissions for the hybrid option to be on one rather than two application forms. This would make sense for non-commercial computer centers focusing on broadband adoption, such as free mini computer centers that might be established in public housing sites or senior centers. For these non-commercial broadband adoption centers, the match could be adjusted down in recognition of the public service nature of the facility.

X. ANSWER TO QUESTION II.B.4: THE NTIA SHOULD RE-DEFINE ‘UNDERSERVED’ AREA TO ALLOW POVERTY RATE TO BE USED AS AN ALTERNATE MEASURE

The NTIA should expand the list of criteria for whether an area is underserved by adding a fourth and fifth criteria: (iv) the poverty rate is greater than 20%. Poverty is a good proxy for whether an area is underserved due to low subscribership. San Francisco has found that subscribership is highly correlated with income. Direct measurement of subscribership should be maintained, but is difficult to obtain other than through a direct survey for this purpose. In addition, the NTIA should clarify that applicants must only indicate that one of the criteria must be met. (The first NOFA caused some unnecessary confusion by stating that “presumably” more than one of the criteria should be met.) Naturally, once a grant has been approved the NTIA should require a direct measurement of subscribership for the service area of a last mile project before and after the project in order to measure the efficacy of the program.

XI. ANSWER TO QUESTION II.D: THE NTIA SHOULD NOT MAKE CHANGES TO NONDISCRIMINATION AND INTERCONNECTION REQUIREMENTS AND SHOULD ENFORCE THESE REQUIREMENTS FOR MIDDLE MILE PROJECTS

San Francisco believes that the NTIA should not make major changes to nondiscrimination and interconnection requirements. If the focus of the program were shifted to middle mile networks, the NTIA should add a condition that any last mile providers that make use of the grant-funded middle mile network should be required to meet the requirements. Applicants should be required to certify that any contracts with last mile providers will include such requirements.

XII. ANSWER TO QUESTION II.F: COST EFFECTIVENESS PER “HOME PASSED” AND OTHER METRICS BASED ON “HOMES PASSED” ARE ILL-SUITED TO A MIDDLE MILE PROJECT

As previously noted, middle mile projects do not pass homes; only last mile projects do. In a middle mile-focused program, any metric based on “homes passed” or “cost effectiveness” per home passed would therefore be irrelevant. If the NTIA chooses to limit BTOP to middle mile projects, the application forms and evaluation process should excise reference to last mile metrics, such as homes passed.

XIII. CONCLUSION

San Francisco respectfully requests that the NTIA consider the foregoing comments and recommendations as it crafts the rules and procedures for the second round of the BTOP grant program.

Dated: November 30, 2009

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